

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/024015

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 C08B30/04 C12N1/16

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 C08B C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data, EMBASE, BIOSIS, CHEM ABS Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 593 855 A (LEE YOUL-LARK ET AL) 14 January 1997 (1997-01-14) column 3, lines 20-65 examples 1-7	1-12
X	US 3 655 396 A (GOTO YASUO ET AL) 11 April 1972 (1972-04-11) column 2, line 13 - column 3, line 41 tables 2,3 examples 1-8	1-12
X	US 3 887 435 A (NAKAMURA JUNJI ET AL) 3 June 1975 (1975-06-03) column 1, line 63 - column 2, line 16 examples 1-5	1-12

-/--



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

16 March 2005

Date of mailing of the international search report

13.04.2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
 NL - 2280 HV Rijswijk  
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
 Fax: (+31-70) 340-3016

Authorized officer

Gerber, M

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US2004/024015

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 902 615 A (SANIEZ MARIE HELENE ET AL) 11 May 1999 (1999-05-11) column 7, lines 47-54 example 4	1-26
P,X	----- EP 1 405 864 A (CORN PRODUCTS INT INC) 7 April 2004 (2004-04-07) examples 1-10	1-12
X	----- US 4 411 991 A (HIRAKAWA ET AL) 25 October 1983 (1983-10-25) column 9, lines 10-54 claims 1-18	19-26
X	----- US 6 475 759 B1 (CARLSON TING LIU ET AL) 5 November 2002 (2002-11-05) column 8, line 64 - column 9, line 3 examples 2,3 column 4, line 61 - column 5, line 10 column 5, lines 43-61 column 6, lines 14-37	20-26
X	----- US 5 503 750 A (RUSSO, JR. ET AL) 2 April 1996 (1996-04-02) column 3, lines 29-32 column 8, lines 13-19 claim 1	20-26
X	----- US 5 079 164 A (KIRKOVITS ET AL) 7 January 1992 (1992-01-07) column 1, lines 12-17 column 2, lines 23-34 examples 1-5	20-26
X	----- EP 1 001 033 A (INSTITUT DE RECHERCHE POUR LE DEVELOPPEMENT) 17 May 2000 (2000-05-17) paragraphs [0008], [0021], [0025] claims 1,3,5,13	20-26
X	----- US 2002/079268 A1 (CABOCHE JEAN-JACQUES ET AL) 27 June 2002 (2002-06-27) paragraphs [0070], [0076], [0077] example 2	20-26
	-----	

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2004/024015

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☒ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-12

Method of making a yeast enhanced steep-water comprising incubating steep-water at a temperature of from 25°C to 45°C under aerobic conditions and product obtainable therefrom.

---

2. claims: 13-19

Method of making an amino acid enhanced steep-water comprising incubating steep-water at a temperature of less than 45°C under anaerobic conditions and product obtainable therefrom.

---

3. claims: 20-26

Method of making a lactate enhanced steep-water comprising incubating steep-water at a temperature of from 36°C to 55°C under anaerobic conditions and product obtainable therefrom.

---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US2004/024015

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5593855	A	14-01-1997	KR 9613078 B1 JP 2702064 B2 JP 6237778 A	30-09-1996 21-01-1998 30-08-1994
US 3655396	A	11-04-1972	NONE	
US 3887435	A	03-06-1975	JP 835742 C JP 49102886 A JP 51009029 B DE 2407026 A1 FR 2217417 A1 GB 1457347 A IT 1007335 B	18-11-1976 28-09-1974 23-03-1976 22-08-1974 06-09-1974 01-12-1976 30-10-1976
US 5902615	A	11-05-1999	FR 2751333 A1 AT 197159 T CA 2210511 A1 DE 69703371 D1 DE 69703371 T2 DK 819702 T3 EP 0819702 A1 ES 2152072 T3 NO 973291 A	23-01-1998 15-11-2000 18-01-1998 30-11-2000 03-05-2001 05-02-2001 21-01-1998 16-01-2001 19-01-1998
EP 1405864	A	07-04-2004	US 2004063192 A1 AU 2003246010 A1 CA 2436686 A1 CN 1496994 A EP 1405864 A1 JP 2004113244 A ZA 200306340 A	01-04-2004 22-04-2004 27-03-2004 19-05-2004 07-04-2004 15-04-2004 17-02-2004
US 4411991	A	25-10-1983	JP 57170194 A JP 57174095 A JP 57208993 A JP 57065197 A AU 7571781 A CA 1162499 A1 DE 3139397 A1 FR 2491495 A1 NL 8104573 A NZ 198413 A	20-10-1982 26-10-1982 22-12-1982 20-04-1982 22-04-1982 21-02-1984 24-06-1982 09-04-1982 03-05-1982 24-08-1984
US 6475759	B1	05-11-2002	AU 754069 B2 AU 9800698 A BR 9814072 A CA 2306697 A1 CN 1276016 A EP 1025254 A1 ID 25625 A JP 2001520018 T NO 20001764 A NZ 504345 A WO 9919503 A1 US 2003129715 A1	07-11-2002 03-05-1999 26-09-2000 22-04-1999 06-12-2000 09-08-2000 19-10-2000 30-10-2001 13-06-2000 31-01-2003 22-04-1999 10-07-2003
US 5503750	A	02-04-1996	CA 2133268 A1	05-04-1995

# INTERNATIONAL SEARCH REPORT

— information on patent family members

International Application No

PCT/US2004/024015

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5079164	A	07-01-1992	AT 391323 B	25-09-1990
			AT 55589 A	15-03-1990
			DE 4000942 A1	13-09-1990
			FR 2644178 A1	14-09-1990
-----				
EP 1001033	A	17-05-2000	FR 2785294 A1	05-05-2000
			DE 1001033 T1	01-03-2001
			EP 1001033 A2	17-05-2000
			ES 2149151 T1	01-11-2000
-----				
US 2002079268	A1	27-06-2002	FR 2816321 A1	10-05-2002
			AU 8927101 A	16-05-2002
			CA 2363287 A1	09-05-2002
			CN 1353191 A	12-06-2002
			EP 1205557 A1	15-05-2002
			JP 2002171960 A	18-06-2002
			NO 20015422 A	10-05-2002
-----				